

WHAT IS CLAIMED IS:

1. A liquid crystal display device comprising:

a substrate;

a thin film transistor on the substrate;

5 a pixel electrode on the substrate, the pixel electrode including a zigzag pattern having a plurality of protrusions and indentations; and

a common electrode on the substrate, the common having the same shape as the pixel electrode.

10 2. The device of claim 1, wherein at least one of the pixel and common electrodes includes a material selected from a group consisting of chromium (Cr), aluminum (Al), aluminum alloy (Al alloy), molybdenum (Mo), tantalum (Ta), tungsten (W), antimony (Sb), an alloy thereof, indium zinc oxide (IZO), and indium tin oxide (ITO).

15 3. The device of claim 1, wherein the protrusion and indentation have a substantially rectangular shape.

4. The device of claim 1, further comprising an alignment layer on the pixel and

common electrodes.

5. The device of claim 4, wherein the alignment layer is selected from a group consisting of polyamic acid and polyimide.

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6. A liquid crystal display device comprising:

a first substrate including a switching device;

a second substrate including a color filter;

a liquid crystal layer between the first and second substrates; and

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first and second electrodes on the first substrate, each of the first and second electrodes having a zigzag pattern having plurality of protrusions and indentations.

7. The device of claim 6, wherein the second electrode has substantially the same shape as the first electrode.

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8. The device of claim 6, wherein at least one of the first and second electrodes includes a material selected from a group consisting of chromium (Cr), aluminum (Al), aluminum alloy (Al alloy), molybdenum (Mo), tantalum (Ta), tungsten (W), antimony

(Sb), an alloy thereof, indium zinc oxide (IZO), and indium tin oxide (ITO).

9. The device of claim 6, further comprising a first alignment layer on the first substrate.

10. The device of claim 9, wherein the first alignment layer is selected from a group consisting of polyamic acid and polyimide.

11. The device of claim 6, further comprising a second alignment layer on the second substrate.

12. The device of claim 11, wherein the second alignment layer is selected from a group consisting of polyamic acid and polyimide.

13. A liquid crystal display device comprising:

a substrate;

a thin film transistor on the substrate;

a first electrode on the substrate, the first electrode including a first plurality of

alternating indentations and protrusions; and

a second electrode on the substrate, spaced apart from the first electrode and including a second plurality of alternating indentations and protrusions.

5 14. The liquid crystal display device of claim 13, wherein the first electrode and the second electrode have substantially the same shape.

10 15. The liquid crystal display device of claim 13, wherein the first plurality of alternating indentations and protrusions include inner indentations and protrusions such that the inner indentations and protrusions are on a side of the first electrode adjacent to the second electrode and the second plurality of alternating indentations and protrusions include inner indentations and protrusions such that the inner indentations and protrusions are on a side of the second electrode adjacent to the first electrode; and

15 wherein a distance between an apex of an inner protrusion of the first plurality of indentations and protrusions and an apex of an inner protrusion of the second plurality of indentations and protrusions is less than a distance between an apex of an inner protrusion of a first plurality of indentations and protrusions and a bottom of an inner indentation of the second plurality of indentations and protrusions.

16. A liquid crystal display device comprising:

a first substrate including a switching device;

a second substrate including a color filter;

a liquid crystal layer between the first and second substrates; and

5 first and second electrodes on the first substrate, each of the first and second electrodes having an alternating pattern having a plurality of protrusions and indentations;

10 wherein the plurality of protrusions and indentations include inner indentations and protrusions such that the inner indentations and protrusions are on a side of one of the first and second electrodes adjacent to the other of the second and first electrodes such that a distance between an apex of an inner protrusion of the first electrode and an apex of an inner protrusion of the second electrode is less than a distance between an apex of an inner protrusion of one of the first and second electrodes and a bottom of an inner indentation of the other of the second and first electrodes.

15 17. The liquid crystal display device of claim 16, wherein the alternating pattern forms a zigzag pattern.

18. The device of claim 16, wherein the second electrode has substantially the same shape as the first electrode.

19. The device of claim 16, wherein at least one of the first and second electrodes includes a material selected from a group consisting of chromium (Cr), aluminum (Al), aluminum alloy (Al alloy), molybdenum (Mo), tantalum (Ta), tungsten (W), antimony (Sb), an alloy thereof, indium zinc oxide (IZO), and indium tin oxide (ITO).

20. The device of claim 16, further comprising a first alignment layer on the first substrate.

21. The device of claim 20, wherein the first alignment layer is selected from a group consisting of polyamic acid and polyimide.

22. The device of claim 16, further comprising a second alignment layer on the second substrate.

23. The device of claim 22, wherein the second alignment layer is selected from a group consisting of polyamic acid and polyimide.

24. The device of claim 13, wherein at least one of the first and second electrodes includes a material selected from a group consisting of chromium (Cr), aluminum (Al), aluminum alloy (Al alloy), molybdenum (Mo), tantalum (Ta), tungsten (W), antimony (Sb), an alloy thereof, indium zinc oxide (IZO), and indium tin oxide (ITO).

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25. The device of claim 13, wherein the protrusion and indentations have a substantially rectangular shape.

26. The device of claim 13, further comprising an alignment layer on the first and second electrodes.

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27. The device of claim 26, wherein the alignment layer is selected from a group consisting of polyamic acid and polyimide.

- 15 28. The device of claim 1, wherein the indentations and protrusions have a substantially trapezoidal shape.

29. The device of claim 6, wherein the indentations and protrusions have a substantially

trapezoidal shape.

30. The device of claim 13, wherein the indentations and protrusions have a substantially trapezoidal shape.

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31. The device of claim 16, wherein the indentations and protrusions have a substantially trapezoidal shape.

32. The device of claim 1, wherein the indentations and protrusions have a substantially triangular shape.

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33. The device of claim 6, wherein the indentations and protrusions have a substantially triangular shape.

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34. The device of claim 13, wherein the indentations and protrusions have a substantially triangular shape.

35. The device of claim 16, wherein the indentations and protrusions have a substantially

triangular shape.

36. The device of claim 6, wherein the indentations and protrusions have a substantially rectangular shape.

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37. The device of claim 13, wherein the indentations and protrusions have a substantially rectangular shape.

38. The device of claim 16, wherein the indentations and protrusions have a substantially rectangular shape.

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